



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-1176; Product Identifier 2017-NM-123-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 747-8 series airplanes. This proposed AD was prompted by a report of restricted movement of the right brake pedals after landing rollout. This proposed AD would require revising the airplane flight manual (AFM) by adding an autobrake system limitation. This proposed AD would also require modifying intercostal webs near a main entry door, which would terminate the AFM limitation. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1176.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1176; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Kelly McGuckin, Aerospace Engineer, Systems and Equipment Section, Seattle ACO Branch, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6490; fax: 425-917-6590; email: Kelly.McGuckin@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-1176; Product Identifier 2017-NM-123-AD” at the

beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

We have received a report of restricted movement of the right brake pedals after landing rollout after the flight crew disengaged the autobrakes using manual brake inputs. An investigation determined that the in-service event had occurred because ice had formed during the flight on the right brake control cable pulleys near door 3R due to inadequate routing and drainage of water. The left brake control system is also vulnerable to ice accumulation because the door 3L and door 3R designs are similar. We are proposing this AD to prevent restricted motion of the brake pedals, which could affect stopping performance and directional control of the airplane. This restricted motion could lead to high speed runway excursion or lateral runway excursion.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Requirements Bulletin 747-32A2525 RB, dated September 6, 2017. This service information describes procedures for modifying intercostal webs near main entry door 3 by drilling two drain holes in the station-18 intercostal web at door stop 8 and applying sealant at the fore-aft drain path of the upper main sill web at station 16 near door 3R and door 3L. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require revising the AFM to incorporate an autobrake system limitation. This proposed AD would also require accomplishment of the actions identified in the Boeing Alert Requirements Bulletin 747-32A2525 RB, dated September 6, 2017, except as discussed under Differences Between this Proposed AD and the Service Information,” and except for any differences identified as exceptions in the regulatory text of this proposed AD.

Accomplishing the actions specified in the service information described previously would be terminating action for the AFM autobrake system limitation. For information on the procedures and compliance times for Boeing Alert Requirements Bulletin 747-32A2525 RB, dated September 6, 2017, see this service information at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1176.

Difference Between this Proposed AD and the Service Information

Boeing Alert Requirements Bulletin 747-32A2525 RB, dated September 6, 2017, is applicable to “Model 747-8 series airplanes having line numbers 1434 through 1539 inclusive.” However, this proposed AD would exclude airplanes having line numbers 1443, 1451, 1453, 1456, 1470, 1472, 1475, 1477, 1480, 1492, 1494, 1497, 1498, 1500, 1503, 1511, 1512, 1513, and 1514, because those airplanes were previously modified to address the identified unsafe condition.

Boeing Alert Requirements Bulletin 747-32A2525 RB, dated September 6, 2017, does not specify the type of sealant that must be used. However, this AD specifies using BMS 5-142, TYPE 2; BMS 5-95; PR-1826; or PR-1828 sealant.

We have coordinated these differences with Boeing.

Explanation of “RB” (Requirements Bulletin)

The FAA worked in conjunction with industry, under the Airworthiness Directive Implementation Aviation Rulemaking Committee (AD ARC), to enhance the AD system. One enhancement is a process for annotating which steps in the service information are “required for compliance” (RC) with an AD. Boeing has implemented this RC concept into Boeing service bulletins.

In an effort to further improve the quality of ADs and AD-related Boeing service information, a joint process improvement initiative was worked between the FAA and Boeing. The initiative resulted in the development of a new process in which the service information more clearly identifies the actions needed to address the unsafe condition in the “Accomplishment Instructions.” The new process results in a Boeing Requirements Bulletin, which contains only the actions needed to address the unsafe condition (i.e., only the RC actions).

Costs of Compliance

We estimate that this proposed AD affects 2 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
AFM revision	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$170
Modification	10 work-hours X \$85 per hour = \$850	[1]	\$850	\$1,700

^[1] We have received no definitive data that would enable us to provide parts cost estimates for the modification specified in this proposed AD.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all available costs in our cost estimate.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct

effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2017-1176; Product Identifier 2017-NM-123-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 747-8 series airplanes, certificated in any category, as identified in Boeing Alert Requirements Bulletin 747-32A2525 RB, dated September 6, 2017, except for airplanes having line numbers 1443, 1451, 1453, 1456, 1470, 1472, 1475, 1477, 1480, 1492, 1494, 1497, 1498, 1500, 1503, 1511, 1512, 1513, and 1514.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing gear.

(e) Unsafe Condition

This AD was prompted by a report of restricted movement of the brake pedals after landing rollout. We are issuing this AD to prevent restricted motion of the brake pedals, which can affect stopping performance and directional control of the airplane. This restricted motion can lead to high speed runway excursion or lateral runway excursion.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Within 120 days after the effective date of this AD: Revise the airplane flight manual (AFM) by incorporating the limitation specified in figure 1 to paragraph (g) of this AD.

Figure 1 to Paragraph (g) of this AD – Autobrake Limitation

Autobrakes	(Required by AD ****-.**-**)
Takeoff is prohibited without an operative autobrake system.	
The autobrake system must be used for landing, unless EICAS messages AUTOBRAKES or ANTISKID are displayed.	
The autobrake system may only be disengaged after slowing to a safe taxi speed or to a full stop, and only by use of the brake pedals.	

(h) Terminating Action for AFM Limitation

Within 60 months after the effective date of this AD, do all applicable actions identified in, and in accordance with, the Accomplishment Instructions of Boeing Alert Requirements Bulletin 747-32A2525 RB, dated September 6, 2017, except where the requirements bulletin specifies applying sealant, the following type of sealant must be used: BMS 5-142, TYPE 2; BMS 5-95; PR-1826; or PR-1828. Doing the actions specified in this paragraph terminates the AFM limitation required by paragraph (g) of this AD. The AFM limitation required by paragraph (g) of this AD may be removed from the AFM after accomplishing the actions specified in this paragraph.

Note 1 to paragraph (h) of this AD: Guidance for accomplishing the actions required by paragraph (h) of this AD can be found in Boeing Alert Service Bulletin 747-32A2525, dated September 6, 2017, which is referred to in Boeing Alert Requirements Bulletin 747-32A2525 RB, dated September 6, 2017.

(i) Special Flight Permit

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed, except as provided by paragraph (j) of this AD.

(j) Ferry Flight Limitations

Operators who are prohibited from further flight due to the autobrake system being inoperative may perform a one-time non-revenue ferry flight to fly the airplane to a maintenance facility to either fix the autobrake system or incorporate the terminating action specified in paragraph (h) of this AD. This ferry flight must be performed without passengers, and with interior modifications to allow heated cabin air to warm the brake control cables and pulleys in the vicinity of door 3L and door 3R. These interior modifications must include, at a minimum, temporarily removing the side panels and insulation immediately aft of door 3L and door 3R.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (l)(1) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been

authorized by the Manager, Seattle ACO Branch, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(I) Related Information

(1) For more information about this AD, contact Kelly McGuckin, Aerospace Engineer, Systems and Equipment Section, Seattle ACO Branch, FAA, 1601 Lind Avenue SW., Renton, WA 98057 3356; phone: 425-917-6490; fax: 425-917-6590; email: Kelly.McGuckin@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on December 14, 2017.

Jeffrey E. Duven,
Director,
System Oversight Division,
Aircraft Certification Service.

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